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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/349,380	07/09/1999	JOHN P. JASPER		6566

7590 09/24/2003

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EXAMINER

SIEFKE, SAMUEL P

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 09/24/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/349,380

**Applicant(s)**

JASPER, JOHN P.

**Examiner**

Samuel P Siefke

**Art Unit**

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-90 is/are pending in the application.
- 4a) Of the above claim(s) 1-16,42-44,48,51,52,55-69 and 71-90 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-41,45-47,49,50,53,54 and 70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ - Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's election with traverse of Group I in Paper No. 6 is acknowledged.

The traversal is on the ground(s) that the claims were amended to conform to the claim language in claim 17. This is not found persuasive because claim 17 is a method, and recites assembling product information and indexing the product information, which can be used as a color chart for identifying species other than by isotope concentration. Examiner regrets making a typo in the last Office Action by including claims 42-44, 48 in Group II. The current restriction is below, which claims 1-16, 42-44, 48, 51, 52, 55-69, 71, 72 will be directed to non-elected claims, along with 73-90 for the reasons below.

Newly submitted claims 73-90 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 73 linking the unknown concentrations to known concentrations for analyzing a plurality of stable naturally occurring isotopes. The original claims are directed to just analyzing an isotope and arranging into a mathematical array in a readable form, and not linking an unknown isotope to a known isotope.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 73-90 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Applicant argues (page 42), "The taggant composition is proposed to comprise multiple tangent elements, with each of the tangent elements containing two or more stable isotopes presented in a selected artificial abundance ratio corresponding to an identification code. Nothing more could be further from the method of Applicant." The Examiner is under the impression that Welle discusses many natural occurring stable isotopes for use with the tagging method. Column 1, line 40 - col. 2, line 24 discusses the natural occurring stable isotopes, among them; Eu, Nd, Dy are used throughout the patent. Col. 4, lines 17-19 specifically "the seven naturally occurring stable isotopes of neodymium."

Applicant argues (page 47-48), "Welle does not disclose or teach a method for identifying products limited to batched products, identifying batched products utilizing a mathematical or numerical array of concentrations from the analysis." As seen in table I, II and III, these are all representations of a numerical arrays, as defined by Webster's II New Riverside University Dictionary, numerical data linearly ordered by magnitude. Col. 2, table II, and lines 61-67 refer to batches of products.

Applicant's arguments with respect to claims 1-16, 42-44, 48, 51, 52, 55-69, 71, 72-90 are moot because they are non-elected claims.

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-16, 42-44, 48, 51, 52, 55-69, 71, 72 drawn to an isotopic identification array, classified in class 702, subclass 22.

- II. Claim 17-41, 45, 46, 47, 49, 50, 53, 54, 70 drawn to an isotopic identification method, classified in class 436, subclass 56.

The inventions are distinct, each from the other because of the following reasons:

Inventions Group I and Group II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used as a color chart for identifying species other than by isotope concentration.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with David A. Lundy on February 12, 2003 a provisional election was made with traverse to prosecute the invention of Group II, claims 17-50. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-16 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims **17-22, 25-33, 41, 45, 46, 47, 49, 50, 53, 54, 70** are rejected under 35 U.S.C. 102(b) as being anticipated by Welle (5,760,394).

Welle discloses an isotopic tagging method that comprises analyzing a product for the concentration of isotopes (col. 2, lines 34-67; col. 3, lines 9-63); arranging the concentrations of the isotopes in a mathematical array (table II, col. 2, lines 36-67); mathematical array in a readable form (table II consisting of increasing numbers starting at 0 and increasing to 9); assembling product information (col. 1, lines 5-10); indexing the product information and the readable form to an index (col. 3, lines 9-63; table III; claim 1, 7 and 18); measuring the concentration of the isotope in a comparable substance and comparing the concentration of isotopes with the mathematical array to identify the product (col. 1, lines 15-26; claim 1); isotopes are chosen based on errors, ratios and the combination of the two (col. 3, lines 1-24; col. 3, line 66- col. 4, line 16); readable form is a machine readable form of the mathematical array (serial numbers and other numerical indicia; table II and III); the product information is made on a machine (col. 5, line 66- col. 7, line 22); the isotopes are chosen from any of the 224 existing stable isotopes of known elements (Table I); products of claim 32 (col. 5, line 66- col. 7, line 22).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims **23,24** and **34-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Welle (5,760,394) in view of Brand et al. (USPN 5,424,539).

Welle discloses an isotopic tagging method that comprises analyzing a product for the concentration of isotopes; arranging the concentrations of the isotopes in a mathematical array; mathematical array in a readable form; assembling product information; indexing the product information and the readable form to an; measuring the concentration of the isotope in a comparable substance and comparing the concentration of isotopes with the mathematical array to identify the product; using inductively couple plasma mass spectrometry to measure the isotope, nuclear magnetic resonance.

Welle does not teach any information regarding the use of dual inlet isotope ratio mass spectrometry and on-line combustion couple to a high-resolution isotope ratio monitoring/mass spectrometry coupled to a gas chromatograph.

Brand teaches that it is well known in the art of chemical analysis that different types of mass spectrometry coupled to gas chromatographs can provide better analysis of chemical compositions, therefore it would have been obvious to one of ordinary skill in the art to modify Welle to include the mass spectrometry coupled to a gas chromatograph for further resolution of specific isotopes in a composition or determination of the isotope by nuclear magnetic resonance (col. 3, lines 5-31). Regarding claim 24, it would have been obvious to provide product information in a printable or scrollable form to provide the operator or manufacture for ease of use and determination of the product.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P Siefke whose telephone number is 703-306-0093. The examiner can normally be reached on M-F 7:00am-5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 703-308-4037. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9311 for regular communications and 703-872-9310 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

SPS

September 15, 2003



Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700